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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

June 21, 2010

TO: Internal File

THRU: James D. Smith, Permit Supervisor *JS 23 June 2010*

FROM: April A. Abate, Environmental Scientist II *AAA 6-21-2010*

RE: New Portals Amendment, Canyon Fuel Company LLC, SUFCO Mine Permit Number C041/0002 Task #3548

SUMMARY:

On June 4, 2010, the Permittee, Canyon Fuel Company submitted an application for the SUFCO mine to include three additional portals within the disturbed area boundary just north of the warehouse in the main mine yard. The existing drainage ditches will be relocated above the proposed portals from watersheds MSH-2, MSH-2A, and ESC-7 in order to collect drainage from the undisturbed watershed areas. In addition to rerouting the drainage, the mine will have to add additional pipe structures to extend and reroute the drainage to the appropriate bypass culverts.

All required information was submitted including updated maps and tables detailing the drainage structures. This amendment meets the Utah Coal Rules and is recommended for approval.

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TECHNICAL ANALYSIS:

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Existing Structures and Facilities Maps

The Permittee provided an updated Drainage Details and Watershed Boundary Map (Plate No. 7-6) for the facilities located in East Spring Canyon. The map depicts the watershed boundaries that will be affected by new portal construction. These watersheds are identified as MSH-2, MSH-2A, ESC-7. The entire MSH-2A and the southern portions of MSH-2 and ESC-7 are located within the disturbed area boundary and are located on the cutslope that was created during construction of the mine yard. The map shows the culvert used to divert undisturbed drainage has been relocated above the proposed portals from the original location, which was at the toe of the slope.

The interception ditch located in watershed MSH-2 will route undisturbed drainage to the Mud Springs Hollow 42" bypass culvert. Drainage from watershed MSH-2A will be routed to the East Spring Canyon 72" bypass culvert via a newly extended 6" pipe. Flows from ESC-7 will be reconstructed to report to a larger diameter 8" pipe northeast of the new ditch. This pipe will tie into the 72" bypass culvert.

Findings:

The updated plan submitted meets the R645 Coal Rules.

OPERATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: R645-301-742.423, 301-762.100

Analysis:

Drainage Control:

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The section of the MRP detailing all Diversion Ditches begins on page 7-58A. The amendment includes an update to the list of drainage culverts indicating that an 8-inch pipe will replace the 6" pipe to divert runoff from undisturbed watershed ESC-7. This pipe will then connect to the 10" pipe that drains undisturbed watershed ESC-6. Page 7-78 of the MRP is updated to indicate that the interception ditch for undisturbed watershed ESC-6 will be upgraded from a 6" diameter pipe to a 10" pipe that connects to the 72" East Spring Canyon Bypass culvert. The ditches that drain undisturbed watersheds MSH-2 and MSH-2A will be kept at the current dimensions. A 6" pipe extension will be added to the area that drains watershed MSH-2A and will be extended to the new outlet.

Discharge Structures:

The Permittee submitted with their application an updated Table 7-10, page 7-80 in the MRP showing the addition of the 8-inch pipe diversion draining ESC-7, discharges to a 10-inch pipe diversion draining ESC-6 and ESC-7 discharging to the East Spring Canyon bypass. Engineering calculations were included with the submittal for the drainage culverts associated with watersheds ESC-6 and ESC-7 and were determined to be properly sized to handle the 10 year, 6-hour storm event.

Findings:

The drainage structures and diversions have all been designed to meet the 10-year, 6-hour precipitation events in accordance with R645-301-742.333 of the Utah Coal Rules.

RECOMMENDATIONS:

Approval of this application is recommended.